CLAIMS

What is claimed is:

1. A magnetic disk for a hard disk drive, comprising:

a substrate;

a S1 magnetic layer located over said substrate;

a layer of ruthenium located over said S1 magnetic layer;

a layer of chromium located over said layer of ruthenium; and,

a top magnetic layer located adjacent to said layer of chromium.

2. The disk of claim 1, further comprising a S2 magnetic layer located adjacent to said layer of chromium and said layer of ruthenium.

3. The disk of claim 1, further comprising an underlayer located between said substrate and said S1 magnetic layer.

4. The disk of claim 1, further comprising an overcoat layer located over said top magnetic layer.

5. The disk of claim 4, further comprising a layer of lubricant located over said overcoat layer.

6. A hard disk drive, comprising:

a base plate;

a spindle motor coupled to said base plate;

a disk coupled to said spindle motor, said disk including;

a substrate;

a S1 magnetic layer located over said substrate;

a layer of ruthenium located over said S1 magnetic layer;

a layer of chromium located over said layer of ruthenium;

a top magnetic layer located adjacent to said layer of ruthenium;

an actuator arm mounted to said base plate;

a voice coil motor coupled to said actuator arm;

a flexure arm coupled to said actuator arm; and,

a head coupled to said flexure arm and said disk.

7. The hard disk drive of claim 6, further comprising a S2 magnetic layer located adjacent to said layer of chromium and said layer of ruthenium.

8. The hard disk drive of claim 6, further comprising an underlayer located between said substrate and said S1 magnetic layer.

9. The hard disk drive of claim 6, further comprising an overcoat layer located over said top magnetic layer.

10. The hard disk drive of claim 9, further comprising a layer of lubricant located over said overcoat layer.

11. A method for fabricating a disk of a hard disk drive, comprising:

forming a layer of S1 magnetic material over a substrate;

forming a layer of ruthenium over the layer of S1 magnetic material;

forming a layer of chromium over the layer of ruthenium; and,

forming a top layer of magnetic material onto the layer of chromium.

12. The method of claim 11, further comprising forming a layer of S2 magnetic material between the layer of ruthenium and layer of chromium.

13. The method of claim 12, further comprising forming an underlayer between the substrate and the layer of S1 magnetic material.

14. The method of claim 13, further comprising forming an overcoat layer onto the top layer of magnetic material.

15. The method of claim 14, further comprising forming a layer of lubricant onto the overcoat layer.